

Claims

1. A process for producing 5-iodo-2-methylbenzoic acid through iodination of 2-methylbenzoic acid, characterized in that the process comprises, as essential steps, a reaction step of iodinating 2-methylbenzoic acid in the presence of a microporous compound, iodine, an oxidizing agent, and acetic anhydride, and a purification step including sublimation, distillation, crystallization, or a combination of two or more of these.
2. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 1, wherein the microporous compound is a β -form zeolite.
3. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 2, wherein the β -form zeolite has an Si/Al mole ratio of 10 to 250.
4. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 3, wherein the β -form zeolite contains an element other than Si, Al, and O, which form a skeleton thereof, within or outside the skeleton.
5. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 4, wherein the element other than Si, Al, and O, which form a skeleton of the β -form zeolite, is at least one member selected from among Na, K, Cs, Ca, Mg, Ti, Sn, Fe, Ni, Zn, Pb, and Ag.
6. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 1, wherein the oxidizing agent is iodic

acid and/or periodic acid.

7. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 1, wherein the microporous compound is separated and recovered from a reaction mixture resulting from the reaction step, followed by re-employment in the reaction step.

8. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 7, wherein the separated and recovered microporous compound is calcined, followed by re-employment in the reaction step.

9. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 8, wherein the separated and recovered microporous compound is washed with a solvent, followed by calcining.

10. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 9, wherein the separated and recovered microporous compound is washed with acetic acid serving as the solvent.

11. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 8 or 9, wherein the separated and recovered microporous compound is calcined at 400 to 700°C.

12. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 1, wherein the reaction step is performed in acetic acid serving as a solvent.

13. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 1, wherein the purification step is crystallization in which a product is precipitated through

cooling or addition of water.

14. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 13, wherein the product is precipitated by adding 0.1 to 5 parts by weight of water to 1 part by weight of formed reaction mixture.

15. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 13 or 14, wherein the formed reaction mixture is subjected to crystallization at 10 to 80°C for purification.

16. A process for producing 5-iodo-2-methylbenzoic acid as described in claim 13, wherein, after crystallization, the solvent is removed from a mother liquor, and a portion of the residue obtained after removal of the solvent is recycled in a crystallization system.

17. High-purity 5-iodo-2-methylbenzoic acid produced through a process as recited in any of claims 1 to 16, which has a 5-iodo-2-methylbenzoic acid purity of 99% or higher and which contains iodine, an iodine compound, an inorganic salt, a transition metal compound, a microporous compound, and a metal oxide in a total amount of 500 ppm or less as impurities.